SDCS-ER-75-71

SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
NTS Event "INLET", 20 November 1975

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SDCS EVENT REPORT NO. 71

NTS Event "INLET", 20 November 1975

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	"P" Arrival	Origin Time	Lat.	Long.	m_b	M_s
NORSAR	15:11:32.0	15:00:06	38 N	116 W	5.6	N/A
Hagfors	15:11:40.6	14:59:45	35 N	119 W	6.3	4.6

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become: Origin time--; Lat.--; Long.--; m sub b--; and M sub s--

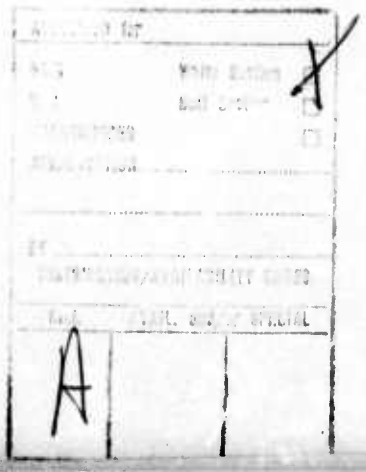
15:00:02.0; 37.3N; 116.4W; 5.7; 4.2.

All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at all SDCS stations, LASA and NORSAR. Horizontal SP channels at all SDCS stations were rotated.

Long-period signals were recorded at all SDCS stations and NORSAR. Horizontal LP channels at all SDCS stations were rotated. Polarity of the LP radial channel at RK-ON is uncertain. Validity of the NORSAR long-period vertical beam is questionable and horizontal beams were not included due to program recovery problems. ALPA long-period data were not recoverable. LASA long-period data were not included due to complicated recovery procedures.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short-period.



STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES DEG MN SEC	ELEVATION METERS	INSTRUMENTATION SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	65 14 00.0 N 147 44 36.0 W	626	None	31300
CPSO	McMinnville, Tennessee	35 35 41.4 N 085 34 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin. West Virginia	38 32 58.0 N 079 30 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41 19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
HN-ME	Houlton, Maine	46 09 43.0 N 067 59 09.0 W	213	18300	SL210 V SL220 H
NORSAR	Kjeller, Norway	60 49 25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50 20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41 41.0 N 134 58 02.0 W	853	18300	SL210 V SL220 H

Note: The orientation of the radial instruments at FN-WV is assumed to be 316° ± 5° based on empirical data (event recordings). Rotation, where performed, is referenced to this azimuth and may be questionable.

HYPOCENTER DETERMINATION

INPUT FOR EVENT 20 NOV 75
15:00:00.0 37.000N 116.000W 0KM.

STA.	ARRIVAL	RESIDUALS CALC	RESIDUALS REST	DIST. REST	AZ. REST
IAC	15 02 53.5	-0.1	0.3	12.0	35.7
BK-CN	15 04 46.3	-0.0	-0.5	21.1	42.9
CPSO	15 05 24.6	-0.2	0.3	24.8	84.7
WH2YK	15 05 37.7	0.2	0.6	26.2	339.2
FN-WV	15 06 02.5	0.0	0.1	29.0	76.2
HN-ME	15 07 09.7	0.6	0.3	36.7	60.5
NAC	15 11 32.0	-0.6	-1.1	73.1	24.1

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
15:00:10.3	37.587N	116.176W	52. CALC	0.4	3	7
15:00:02.0	37.338N	116.363W	0. REST	0.6	3	7

CALC

```
    1 . 1
  0   .   0
0    0. 3   2
. . . . . . .
0    0. 0   0
  0   .   0
    0 . 0
```

REST

```
    1 . 1
  0   .   0
0    0. 3   2
. . . . . . .
0    0. 0   0
  0   .   0
    0 . 0
```

CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 1.69
MAJOR 61.6KM. MINOR 37.9KM. AZ= 30 AREA= 7334 SQ.KM. REST

DATA SUMMARY

INPUT FOR EVENT 20 NOV 75
15 00 00.0 37.000N 116.000W 0KM.

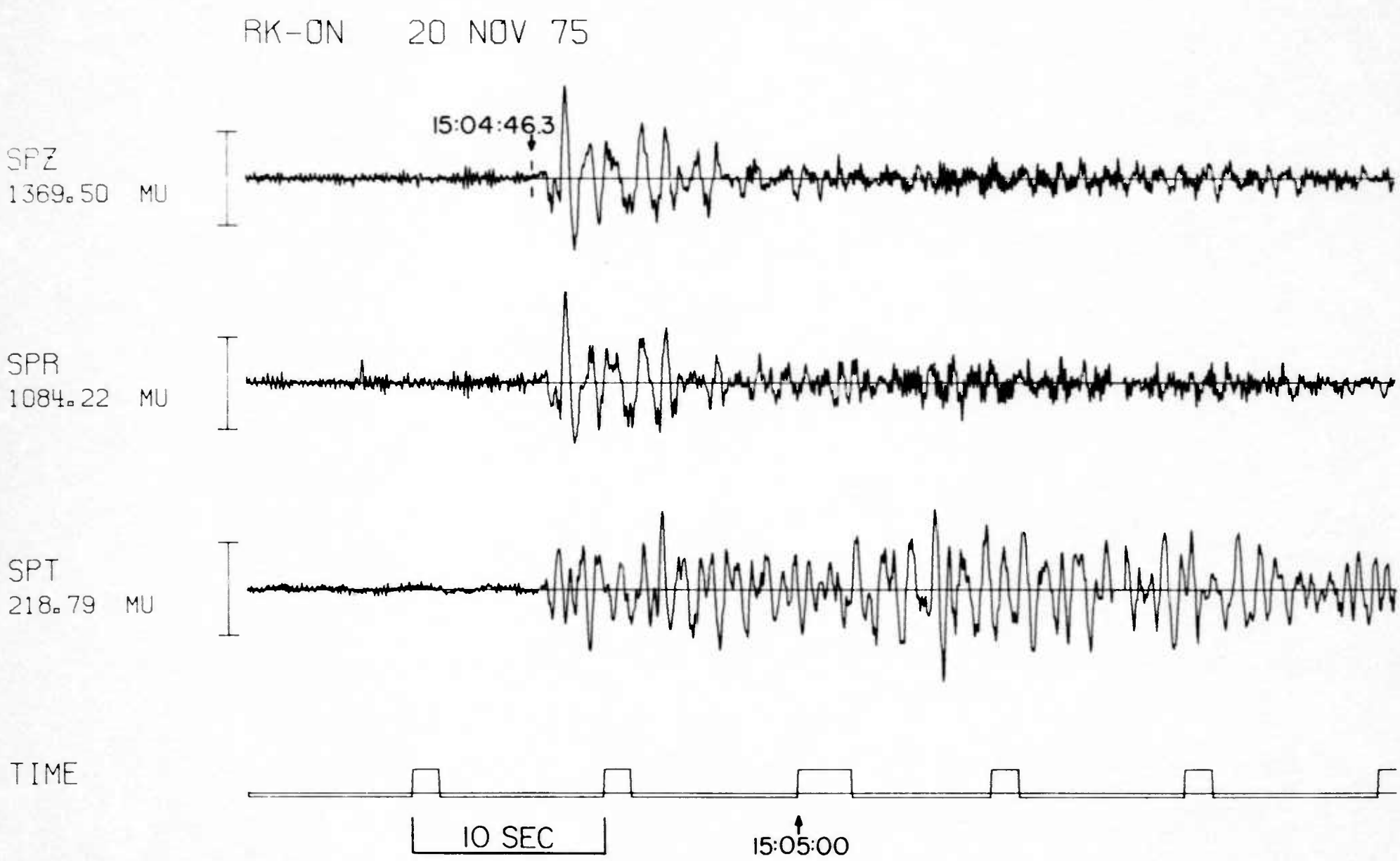
STA.	PHASE	ARRIVAL TIME	INST	PER	A/T	MAGNITUDE MB	MS	DIR	DIST
LAO M	EP	15 02 53.5	LAO	1.1	642.	6.61			12.0
RK-ON	EP	15 04 46.3	SPZ	0.7	1501.	5.98			21.1
RK-ON	LQ	15 11 59.0	LPT	16.0	216.				
RK-ON	E	15 12 51.0	LPR	13.0	173.				
CPSO	EP	15 05 24.6	SPZ	0.7	945.	6.13			24.8
CPSO	LQ	15 13 42.0	LPT	15.0	1001.				
CPSO	LR	15 15 25.0	LPZ	12.0	2020.		5.82		24.8
WH2YK	EP	15 05 37.7	SPZ	1.0	127.	5.22			25.2
WH2YK	LQ	15 14 46.0	LPT	21.0	313.				
WH2YK	LR	15 16 56.0	LPZ	16.0	828.		5.46		25.2
FN-WV	EP	15 06 02.5	SPZ	0.7	79.	5.20			29.0
FN-WV	LQ	15 15 55.0	LPT	16.0	689.				
FN-WV	LR	15 18 01.0	LPZ	13.0	953.		5.55		29.0
HN-ME	EP	15 07 09.7	SPZ	0.9	580.	6.00			36.7
HN-ME	LQ	15 20 05.0	LPT	17.0	155.				
HN-ME	LR	15 22 47.0	LPZ	16.0	115.		4.74		36.7
NAO	EP	15 11 32.0	AB	0.7	97.	5.57			73.1
NAO	LR	15 42 12.0	LPZ	18.0	16.		4.19		73.1

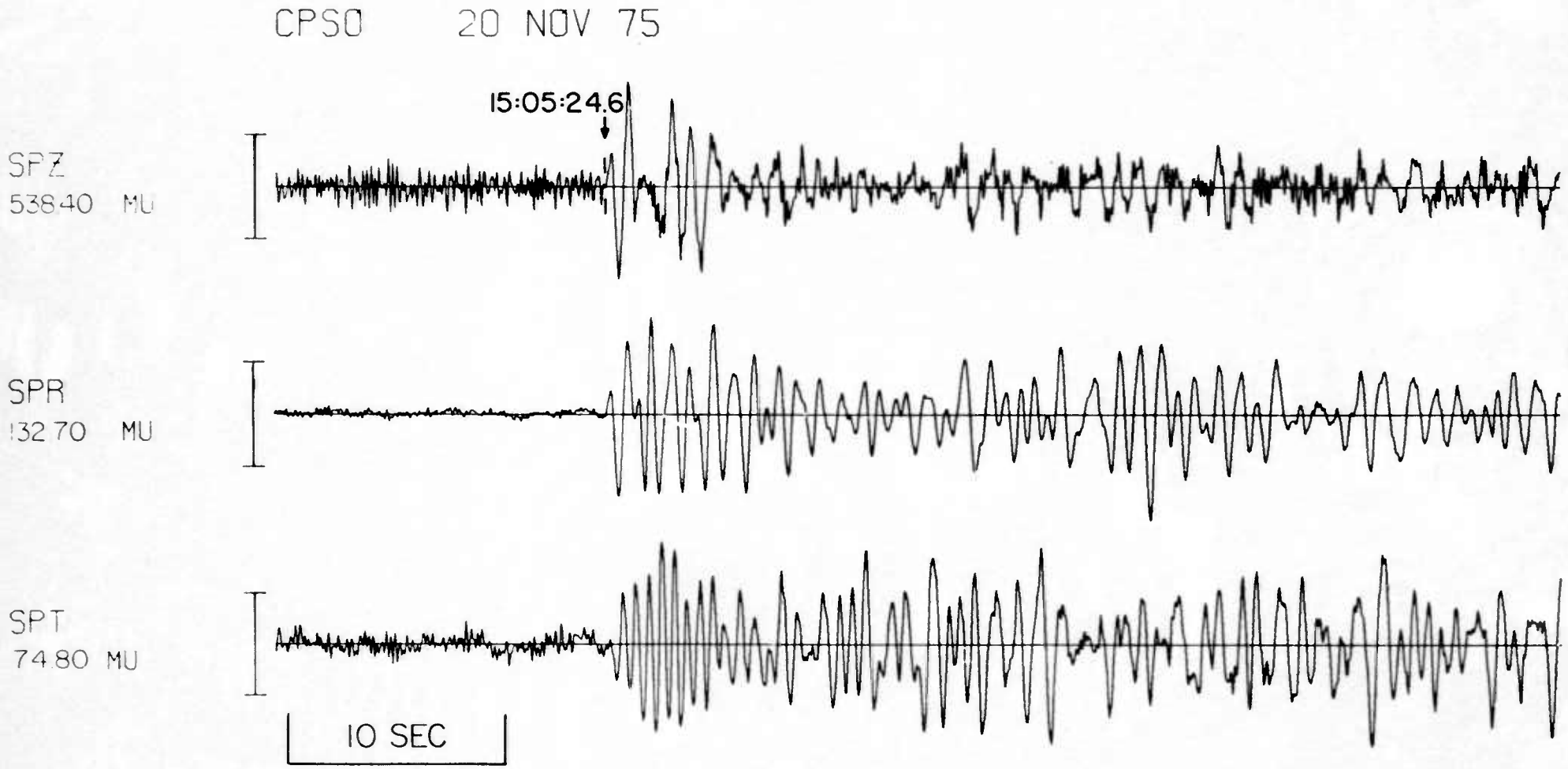
ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA	LPMAG	LPSDV	LPSTA
15 00 10.3	37.587N	116.176W	52. CALC	5.62	0.45	6	4.19******		1
15 00 02.0	37.338N	116.363W	0. REST	5.68	0.41	6	4.19******		1

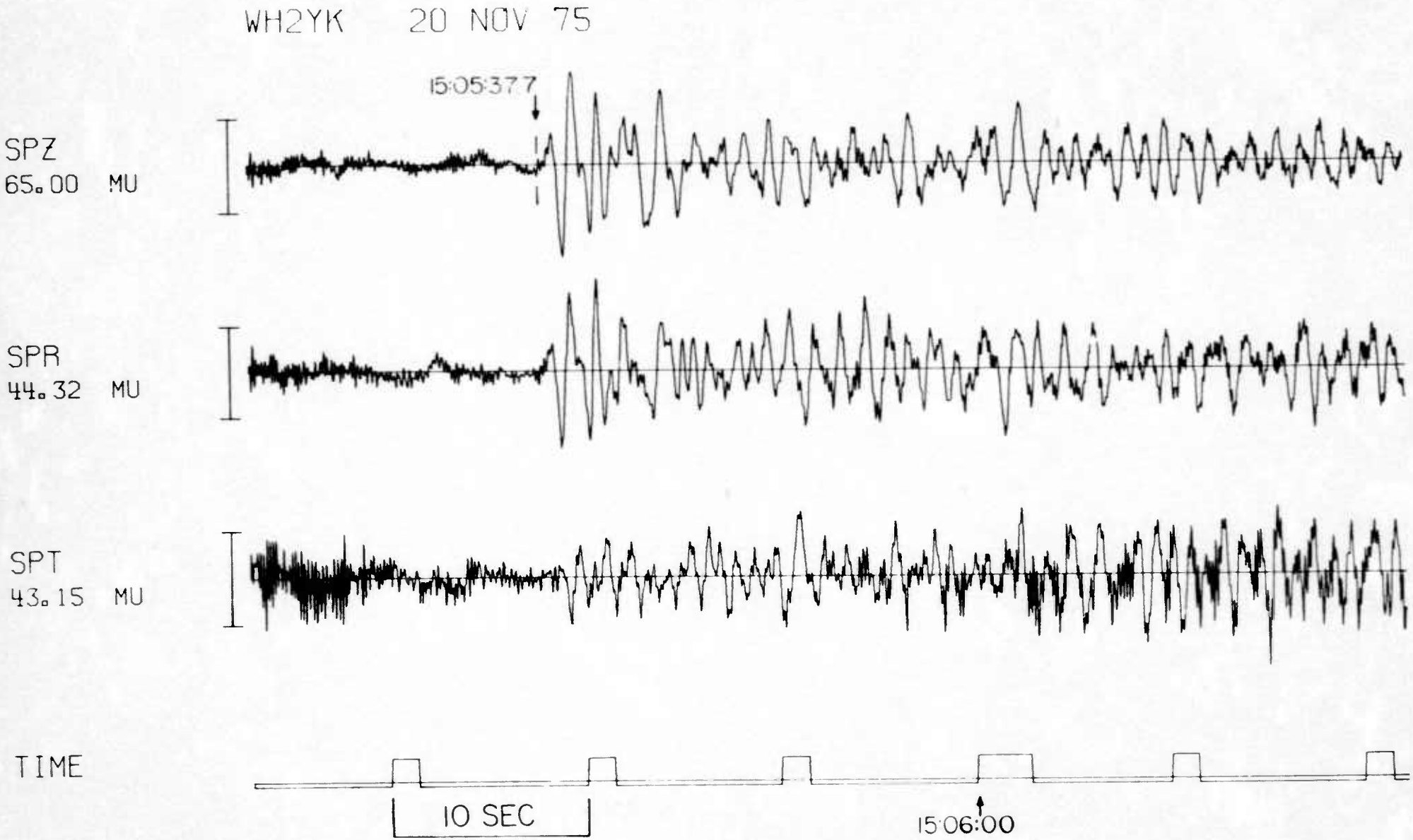
LAO NOT USED IN CALC RUN SP AVG. MAG.
LAO NOT USED IN REST RUN SP AVG. MAG.

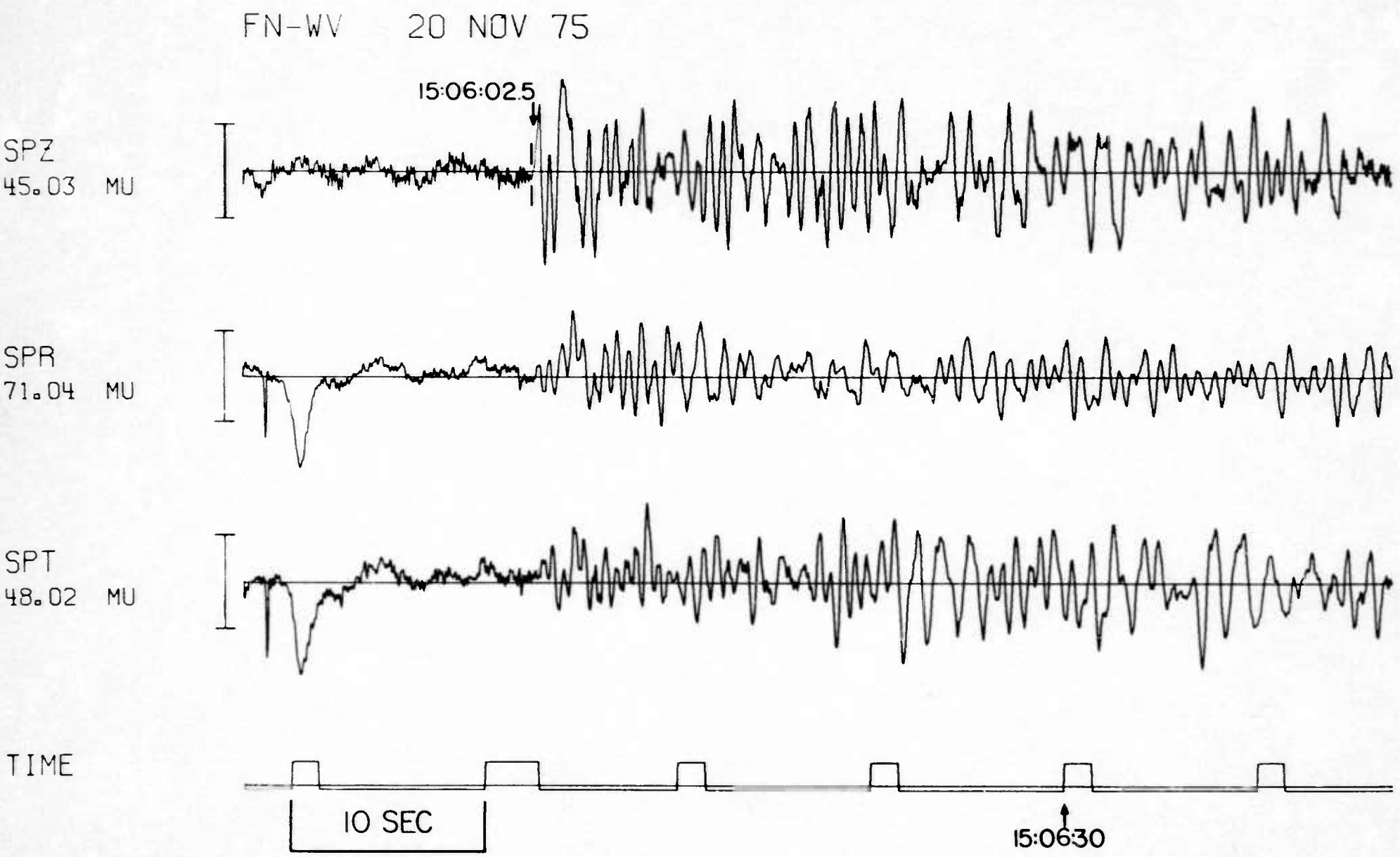
Short-period magnitudes (m_b) used in averaging are restricted to those recorded at distances between 20 and 110 degrees from the epicenter.

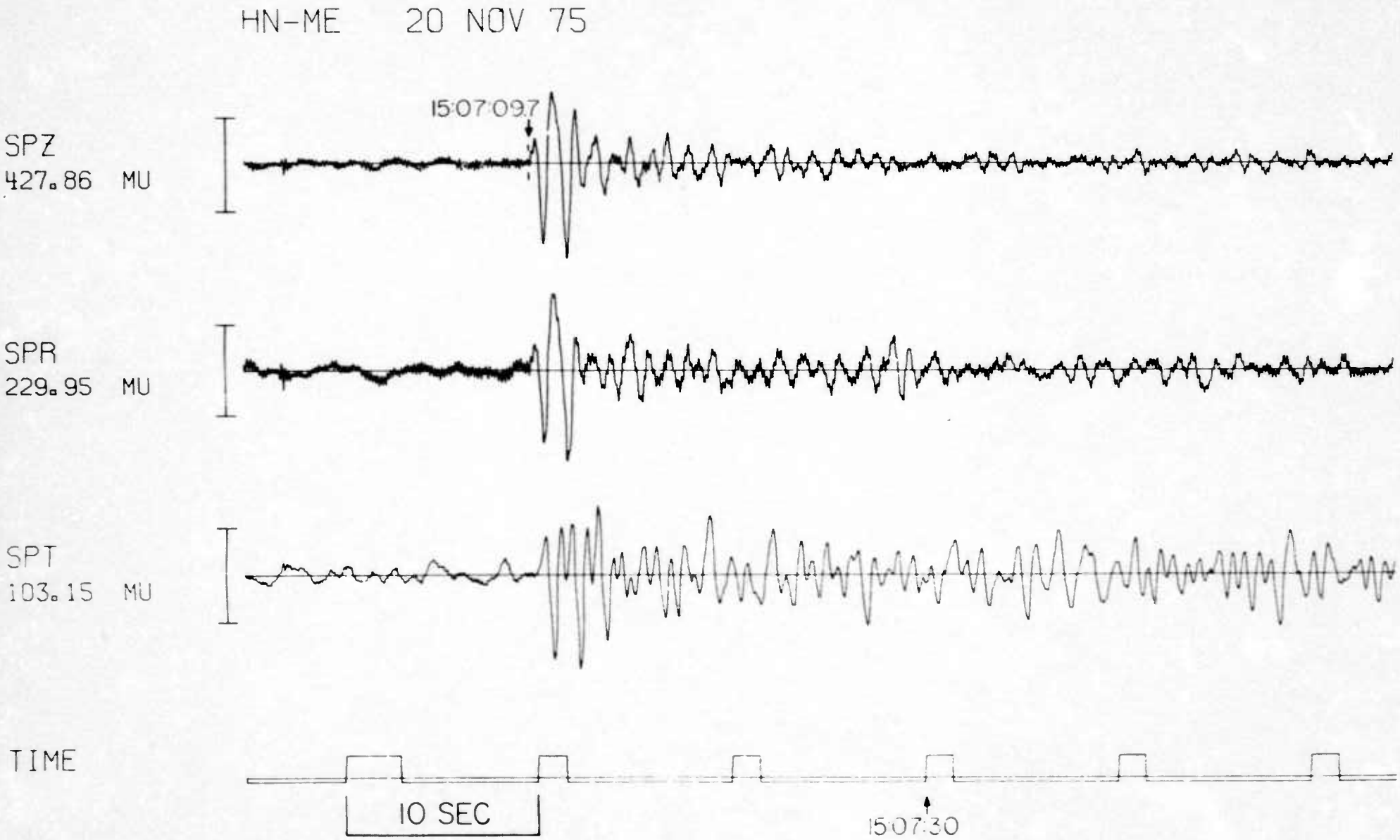
Average long-period magnitude (M_S) is based on Rayleigh wave observations in the period range of 17 to 23 seconds per cycle.

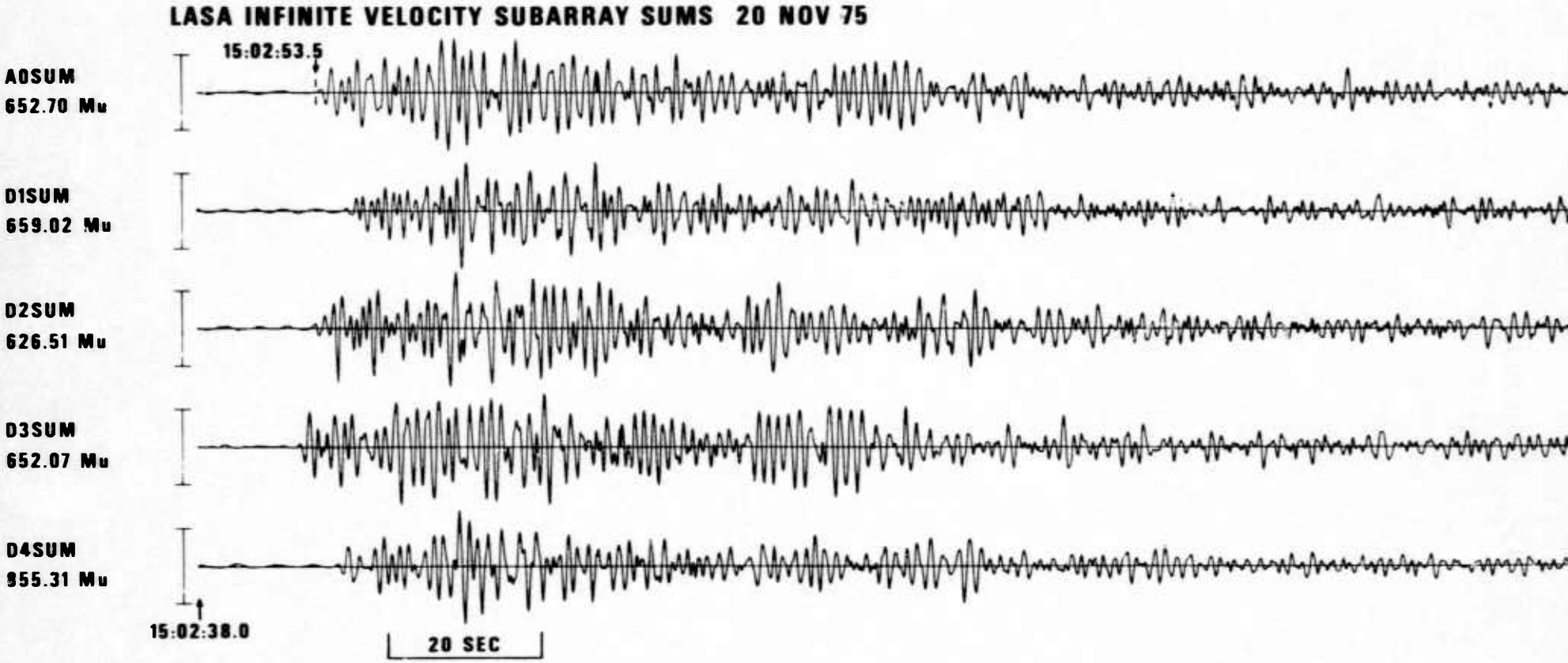

RK-ON 20 NOV 75
15:04:46.3
SPZ
1369.50 MU
SPR
1084.22 MU
SPT
218.79 MU
TIME
10 SEC
15:05:00

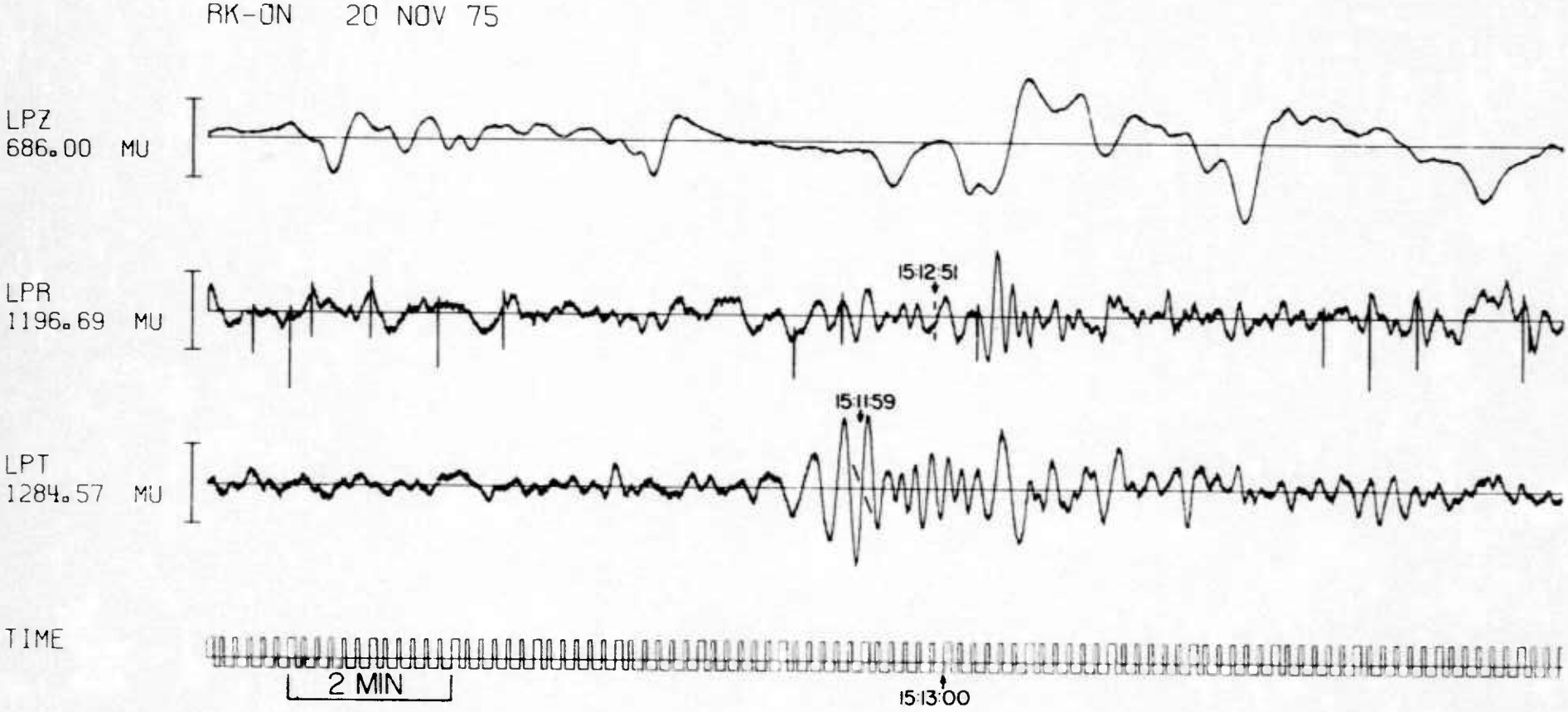

CPSO 20 NOV 75
15:05:24.6
SPZ
53840 MU
SPR
13270 MU
SPT
7480 MU
10 SEC

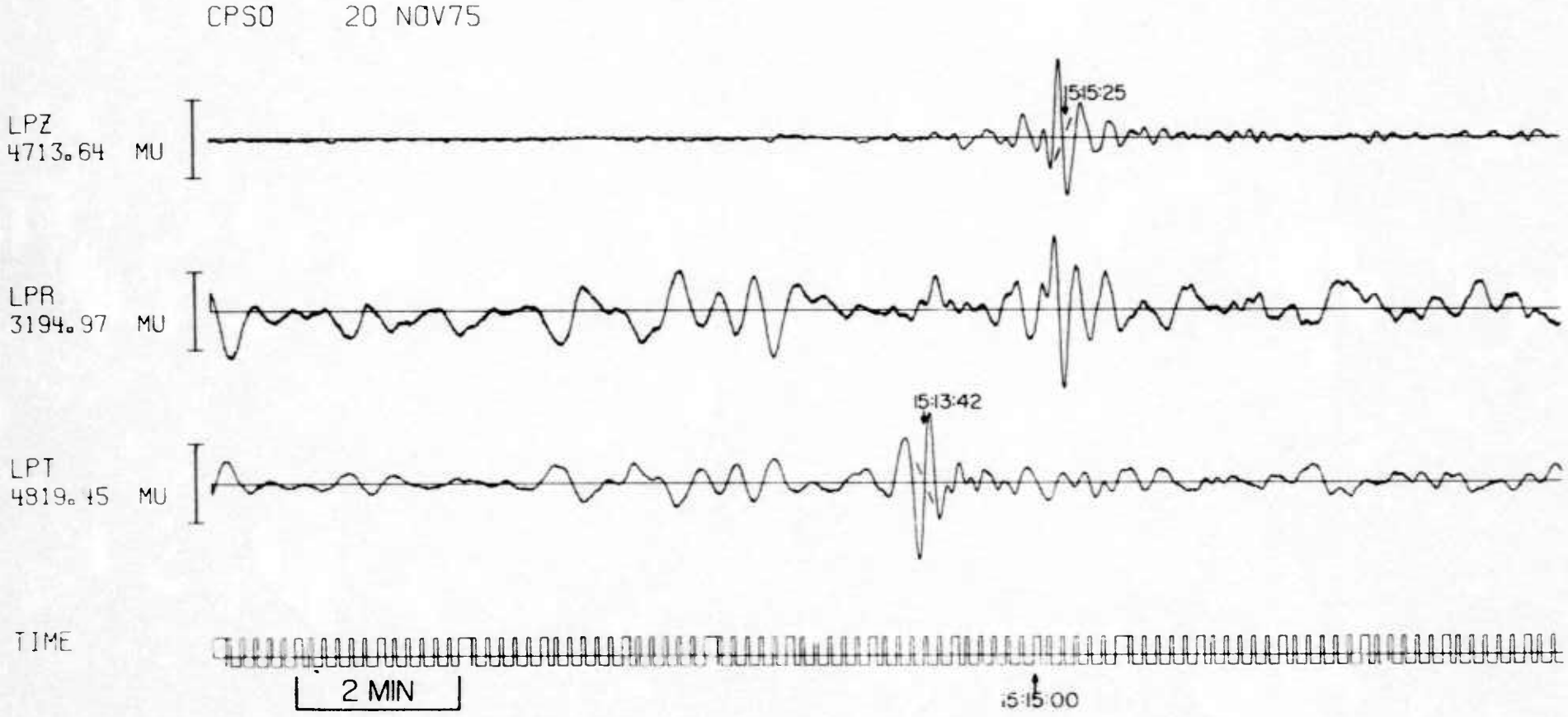

WH2YK 20 NOV 75
15:05:37.7
SPZ
65.00 MU
SPR
44.32 MU
SPT
43.15 MU
TIME
10 SEC
15:06:00

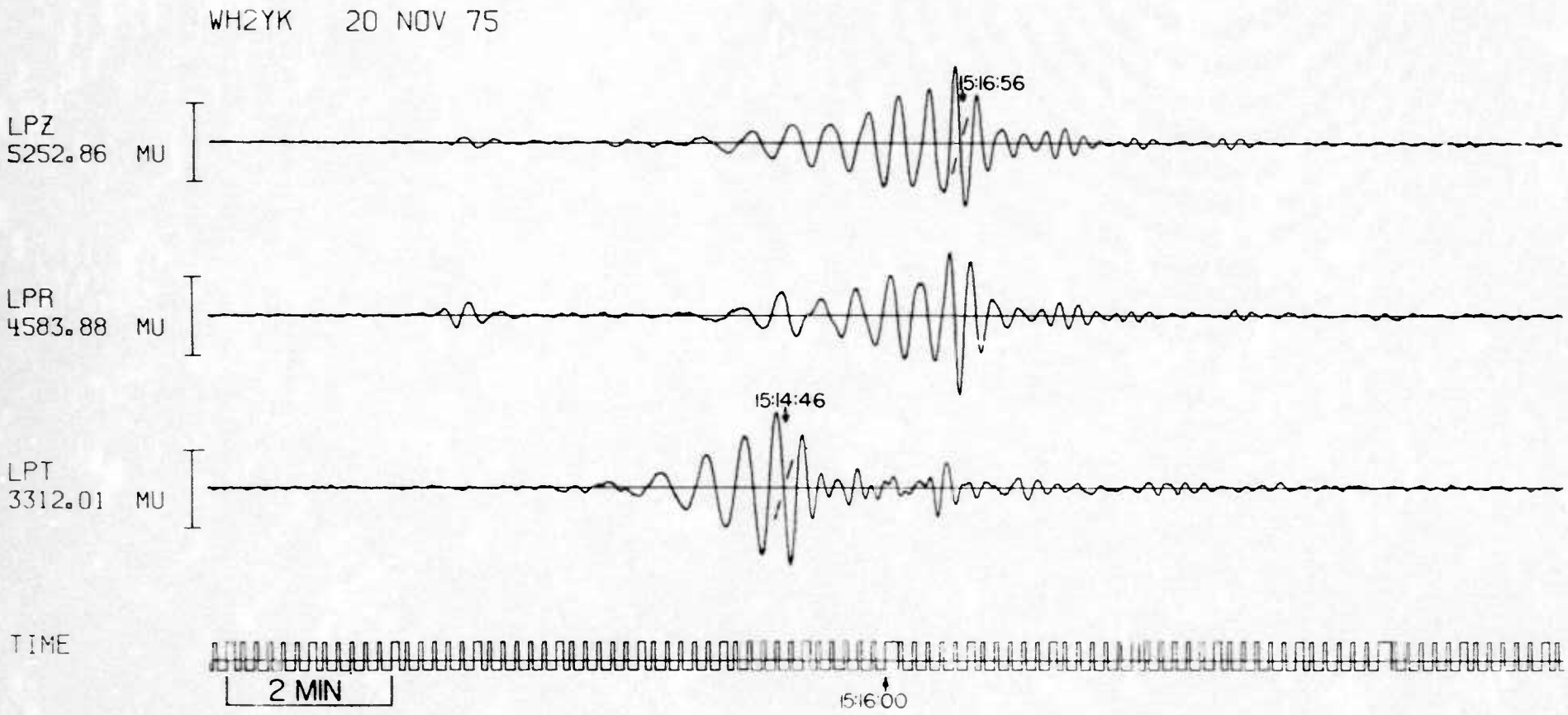

FN-WV 20 NOV 75
15:06:02.5
SPZ
45.03 MU
SPR
71.04 MU
SPT
48.02 MU
TIME
10 SEC
15:06:30

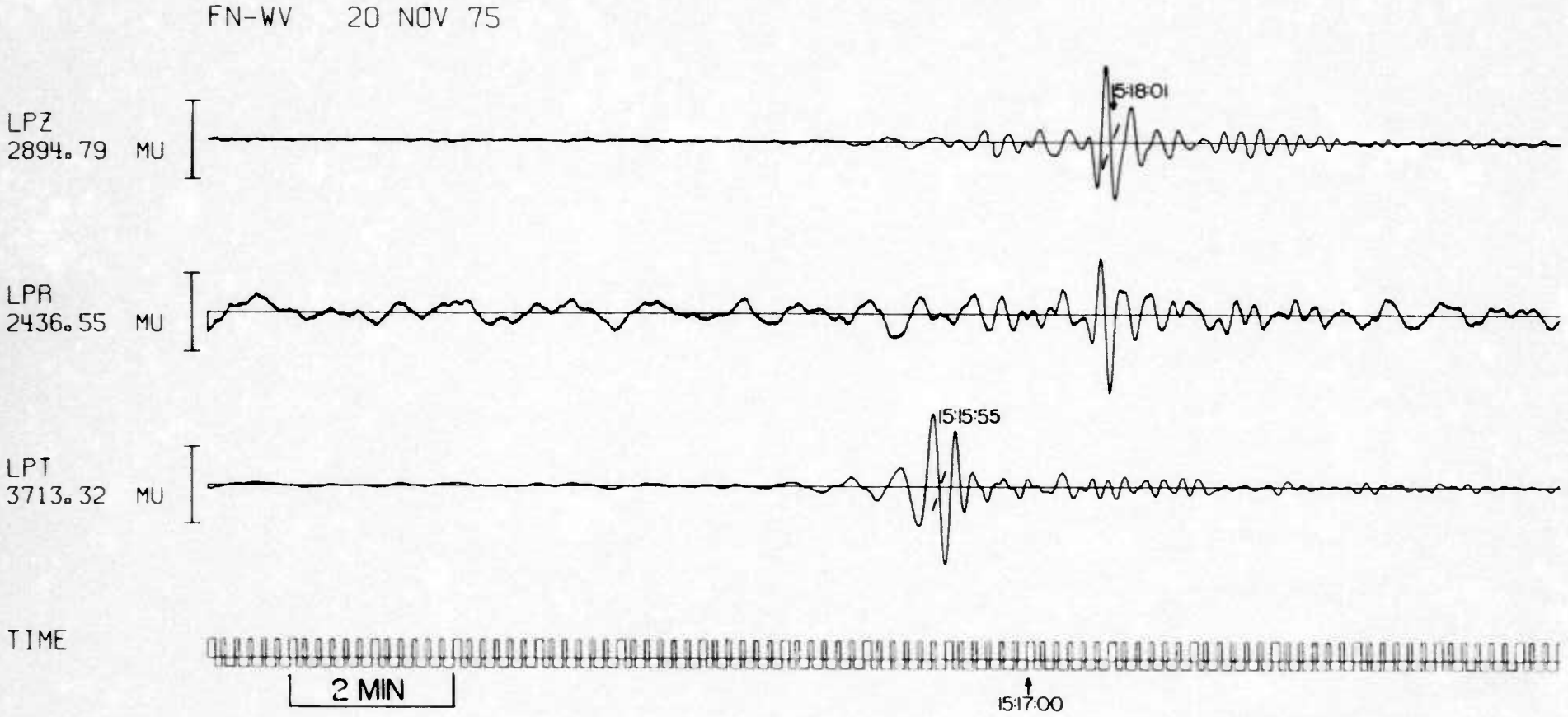

HN-ME 20 NOV 75
15:07:09.7
SPZ
427.86 MU
SPR
229.95 MU
SPT
103.15 MU
TIME
10 SEC
15:07:30

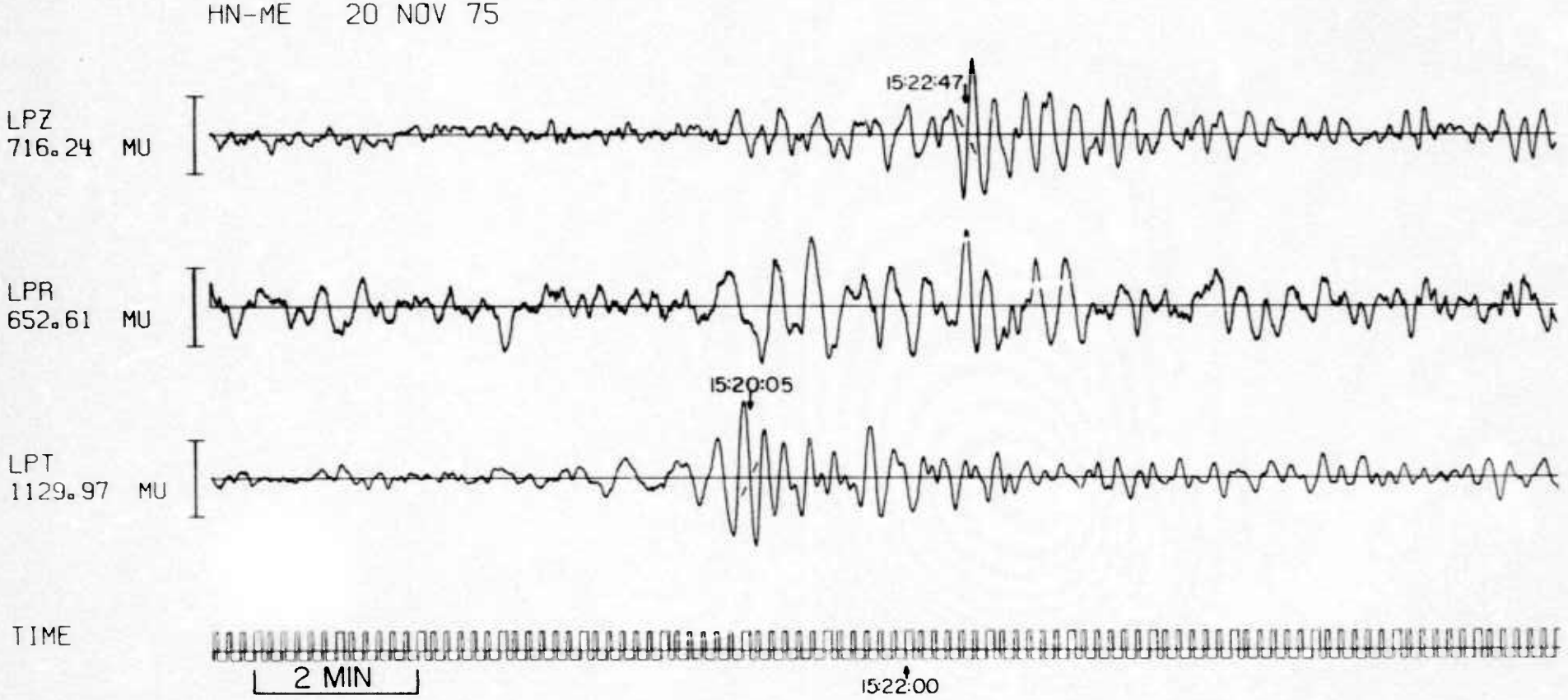

LASA INFINITE VELOCITY SUBARRAY SUMS 20 NOV 75
15:02:53.5
A0SUM
652.70 Mu
D1SUM
659.02 Mu
D2SUM
626.51 Mu
D3SUM
652.07 Mu
D4SUM
955.31 Mu
15:02:38.0
20 SEC


RK-ON 20 NOV 75
LPZ
686.00 MU
LPR
1196.69 MU
15:12:51
LPT
1284.57 MU
15:11:59
TIME
2 MIN
15:13:00


CPSO 20 NOV75
LPZ
4713.64 MU
15:15:25
LPR
3194.97 MU
LPT
4819.45 MU
15:13:42
TIME
2 MIN
15:15:00


WH2YK 20 NOV 75
LPZ
5252.86 MU
15:16:56
LPR
4583.88 MU
LPT
3312.01 MU
15:14:46
TIME
2 MIN
15:16:00


FN-WV 20 NOV 75
LPZ
2894.79 MU
15:18:01
LPR
2436.55 MU
LPT
3713.32 MU
15:15:55
TIME
2 MIN
15:17:00


HN-ME 20 NOV 75
15:22:47
LPZ
716.24 MU
LPR
652.61 MU
15:20:05
LPT
1129.97 MU
TIME
2 MIN
15:22:00

NORSAR LONG PERIOD VERTICAL BEAM 20 NOV 75